RTX

Rev 1.1 · Nov 2026

Auracast™ Transceiver



AURACAST

The RTX is a versatile Auracast™ transceiver that switches between transmitter and receiver modes, making it suited to both tour guiding and assistive listening.

In receiver mode it serves people without Auracast™-enabled hearables, through headphones or a neck loop. Fully interoperable with Auracast™ transmitters and the CASTER series, with low-latency streaming under 40 ms.

AUDIO

Connection	3.5 mm TRRS jack — headset, headphones, neck loop or microphone; TRS and TRRS headphones supported
Jack wiring	CTIA / AHJ — tip Left, ring 1 Right, ring 2 Ground, sleeve Mic / Line in
Frequency response	10 Hz – 22 kHz
Sample rate	48 kHz
Playback codec	LC3
TX input	Microphone or line level
Latency	< 40 ms
Max input voltage	0.707 Vrms
SNR / THD+N	ADC 91 / −85 dB; DAC 95 / −82 dB
Headphone output	16–32 ohm recommended; 16–64 ohm compatible
Processing / DSP	Ducking — playback is attenuated automatically under a live Auracast™ stream
Mic gain	High / Mid / Low

RADIO

Technology	Bluetooth® 5.3 Low Energy (Auracast™)
Frequency range	2400 – 2482 MHz (2.4 GHz ISM band)
Codec	LC3 — 16 / 24 / 48 kHz as receiver; broadcasts at 24 kHz
TX power	Selectable 5 / 10 / 15 / 20 dBm from the device menu or SmartHive
Modes	Transmitter or receiver, switched in Hive Central (DUPLEX, DUPLEX+)
Secure broadcast	4–16-character password, AES128 — joined through B-PASS or SmartHive, not from the stream list
NFC	Tap-to-Access on supported devices

POWER & BATTERY

Battery	Lithium-polymer, 3.7 VDC, 1,400 mAh — user-replaceable under a removable cover
Battery life	Receiver mode up to 16 h; transmitter mode up to 10 h, depending on TX power
Charge time	Under 4 hours
Charging	USB-C — 5 VDC, 500 mA; or the SmartHive cradle
Cradle contacts	4 pogo pins with a magnetic latch — charging and programming

REGULATORY

EU / UK	CE (RED) — EN 300 328, EN 301 489-1 / -17, EN 62368-1, EMF; UKCA
USA / Canada	FCC ID 2BOBX-BRTX (Part 15.247); IC 33650-BRTX (RSS-247)
Japan	MIC 219-259225
Australia / NZ	RCM — AS/NZS 4268, CISPR 32, 2772.2
Environmental	RoHS, REACH, WEEE (Cat. VI)
Battery transport	UN 38.3; MSDS

Bettear

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LICENSING

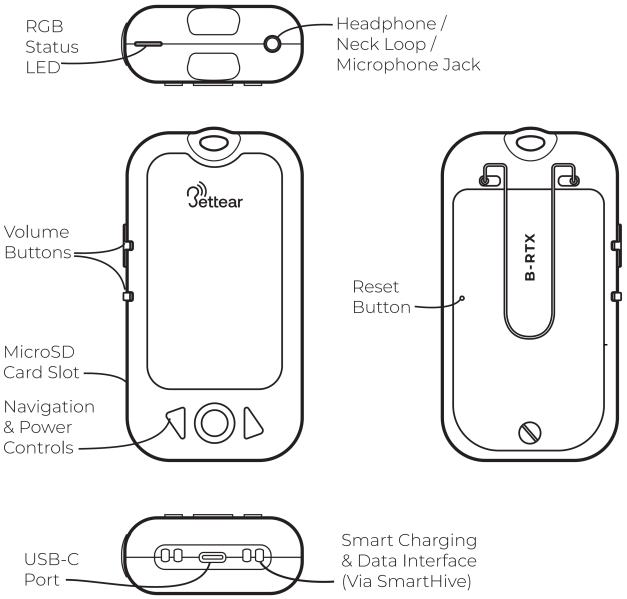
	Experience	Duplex	Duplex+
Receiver mode	●	●	●
Transmitter mode	—	●	●
Tap-to-Access (NFC)	●	●	●
MP3 streaming and playback	—	—	●
Timecode	—	—	●

Tap-to-Access is available on NFC-supported devices. DUPLEX and DUPLEX+ licenses can be applied to a unit at any time. Stream Lock ties a unit to one broadcast and List Lock filters the stream list to one deployment — both set from SmartHive with Hive Central.

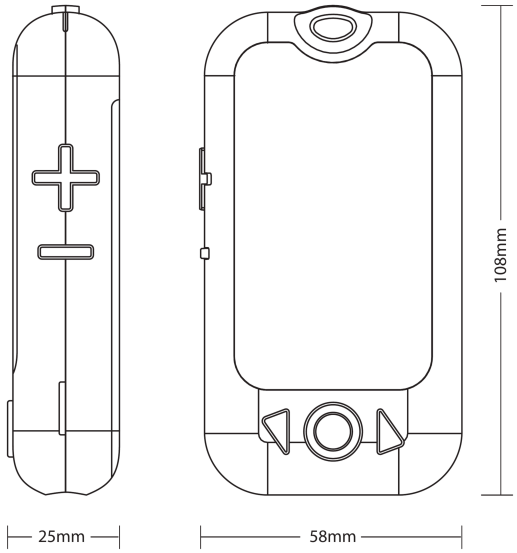
DISPLAY & INDICATORS

Display	2” TFT RGB, 240 × 320	Status LED	RGB indicator

CONTROLS & INTERFACES



DIMENSIONS



PHYSICAL & IN THE BOX

Dimensions	108 × 58 × 25 mm
Weight	120 g (0.26 lbs); shipping 210 g (0.46 lbs)
Operating temp.	−10 °C to +43 °C (14 °F to 109.4 °F)
Storage temp.	−30 °C to +70 °C (−22 °F to 158 °F)
Colors	Light grey, dark grey, blue

Supplied	RTX unit and a USB-C to USB-A charging cable
Required	USB power adapter, 5 VDC / 500 mA — not included
Add-ons	Belt clip
Compatible devices	CASTER series transmitters; B-PASS; SmartHive; Hive 4; Hive Central

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